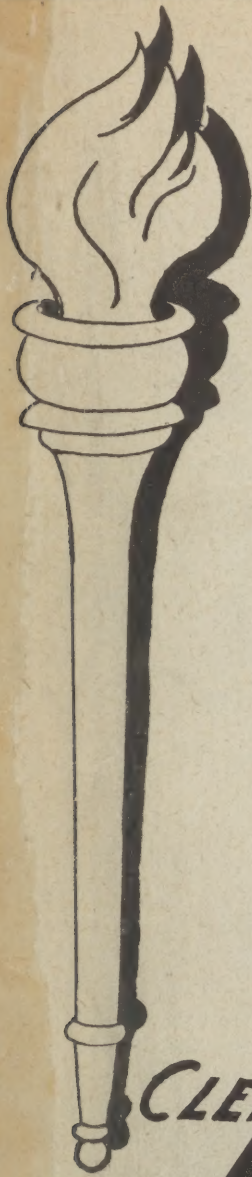


1306



*A*  
*TEACHER-PARENT*  
*GUIDE*  
*TO*  
*SPEECH TRAINING*  
*FOR*  
*CLEFT PALATE CHILDREN*

JOHN CALLAHAN, STATE SUPERINTENDENT  
DEPARTMENT OF PUBLIC INSTRUCTION  
BUREAU FOR HANDICAPPED CHILDREN  
MADISON  
NOVEMBER 1944

Wisconsin  
III

A Teacher-Parent Guide  
to  
Speech Training for Cleft Palate Children

Charlotte G. Wells, Ph. D.

WV  
440  
W811t  
1947



JUN 13 1943

## FOREWORD

This pamphlet is intended to be of universal appeal and value to all parents who have a child born with a cleft palate or cleft lip, or both. When we consider that one out of every thousand babies born comes to the family with this accident of nature, one realizes the importance of rehabilitating these children when they are young, if they are to have an equal opportunity with others.

The pamphlet was written by Dr. Charlotte G. Wells, assistant professor of speech at Mount Holyoke College, Massachusetts. During the summers of 1943 and 1944, Miss Wells directed the cleft palate speech training center and prepared this material in collaboration with Gretchen Mueller and Irma Stockwell, teachers in the training center. Illustrations are by Winifred Balsley and the arrangement is by Gretchen Blanke.

The cleft palate speech training center is a part of Wisconsin's program for crippled children and has been financed entirely through federal and University of Wisconsin funds. The aims and purposes of the program were given in a pamphlet published in January 1944 with the title "Speech Therapy--A New Chapter in Wisconsin's Care for Handicapped Children". Early in the summer of 1943 and in the months following, many parents requested more help than could be provided in a two-months' program. Hence, this pamphlet, so that the parents might continue the work begun. During the school years of 1944-45 and 1945-46, Miss Mueller will be employed by the state with federal funds made available for the purpose, to study the state speech situation pertaining to cleft palate and cerebral palsy children.

We wish to take this opportunity of expressing our appreciation to Dr. H. M. Coon, and the staff of the state hospital, Dr. John Guy Fowlkes and Dr. Robert West of the University of Wisconsin, and the members of the Children's Bureau who have helped in making this program possible.

Frank V. Powell, Director  
Bureau for Handicapped Children

434661

## TABLE OF CONTENTS

### Introduction

Part I	The Problem of Cleft Palate .....	1
Part II	How Parents and Teachers Can Help the Cleft Palate Child .....	17
Part III	Suggestions for Speech Training for the Cleft Palate Child .....	23



## INTRODUCTION

Parents and teachers have many responsibilities for children in their homes and classrooms. They must care for the child, guide him, teach him, provide opportunities for his best growth and development. Theirs is not an easy task even when the children's problems are those we expect of the child who is average in growth, development, school progress, and social adjustment.

When children have special problems, parents and teachers assume additional responsibilities. A child who cannot see, one who cannot hear, one who cannot walk or run as others can, one who has difficulty in learning or using speech may bring to family and school the responsibility of special care, but may also bring the satisfaction of service to those who help the child become a better member of the society in which he will live.

This bulletin is designed to help parents and teachers of children born with cleft lips and cleft palates. It recognizes the need for suggestions to those who are responsible for the child's health, growth, development, and education. It sees the many problems involved in teaching speech to the cleft palate child. It discusses the functions of those speech organs that are incomplete because of a cleft in lip or palate. It answers some of the questions often asked about lip and palate clefts. It suggests procedures for speech training at home and at school.

The reader is urged to study the entire bulletin before he tries to use it. The material is presented in sequential form, each part supplementing, but depending on, the part preceding.



## PART I

### THE PROBLEM OF CLEFT PALATE

If we are to understand the failure of growth that results in a cleft or opening in the roof of the mouth, we should first consider briefly the structures of the mouth, throat, and palate as they serve in the fundamental processes of eating and drinking and in the important process of speaking. An understanding of the average structure will help us to appreciate more the problems faced by the child with a cleft palate and by the surgeon, the parent, and the teacher who are interested in helping the child.

The lips, teeth (after their growth), tongue, roof of the mouth, and the upper part of the throat are among the parts used in the eating process. As the food or drink enters the mouth cavity, it is moved about by the tongue, chewed by the teeth if such chewing is necessary, and pushed to the back of the mouth. The swallowing process then carries the food into the esophagus and thence to the stomach. The lips aid the child in nursing and in taking food into the mouth. The tongue pushes the food into position to be chewed by the teeth or helps move the liquid toward the back of the mouth to be swallowed. The teeth break the larger particles of food into smaller and more easily swallowed pieces. The roof of the mouth serves as a top boundary to keep the food in the mouth and to prevent its entering the nose cavities, which lie just above the mouth and are separated from it by this palate structure. At the front of the mouth, the palate is quite hard, being composed of bone covered over with skin, while at the back of the mouth, the roof becomes soft and flexible.

If you place your tongue behind the upper teeth you will feel first the rough solid surface of the



hard palate and then, as you move the tongue back, you will notice a change in the surface from hard to soft. The soft palate goes on back to hang like a veil or covering above the mouth cavity, and ends in a pendulous extension called the uvula. Your tongue will probably not be able to explore as far as the uvula, but you can easily observe it by looking in a mirror.

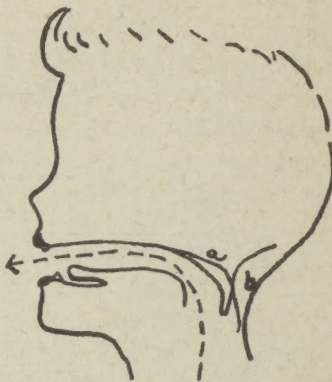
As you look, say "ah", as your doctor has you say when he wishes to look at your throat, and you will see the movement of the soft palate and uvula at the back part of the top of the mouth.

Not only is the palate an essential part of the apparatus used for eating, but, like the lips, teeth, tongue, and other throat and mouth structures, it is used also for speech. When we speak, we send a stream of air from the lungs through either the mouth cavity or the nose cavity. This stream of air may be sent out as air only or it may be "voiced"—set into vibration by the action of the vocal cords in the throat. The sound or air is then formed into the many different sounds we use for speech. However, all but three of the sounds of American speech, be they voiced by the vocal cords or voiceless, are directed through the mouth passage and do not reach the open air through the nose passage. The soft palate is used to control the direction of these speech sounds. When it is lowered, the sounds m, n, and ng go through the nasal passages. When the soft palate is elevated to meet the forward-moving walls of the throat, the other sounds are sent through the mouth. If the soft palate is not complete, if it has failed to grow or to develop, it will not be able to assist in making the adjustments necessary to control the direction of the sound or air in speech.

Let us see now how the average palate works to direct the sounds of speech through the mouth or through the nasal passages, as we wish. Suppose that you are going to say "Hello" in greeting to someone

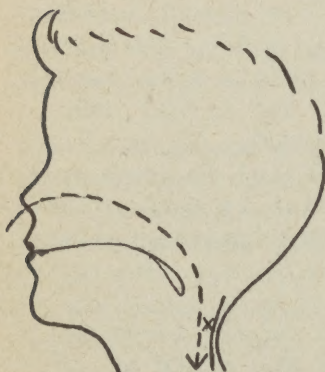


you meet. You don't have to think very hard about saying that word, because you have become so accustomed to saying it. However, you do make, unconsciously, many adjustments in your speaking apparatus as you form the sounds. You open your mouth and say the word, forming the stream of air and tone into the sounds that are in the greeting. All of the sounds in the word "Hello" are sent through the mouth passage. None of them reaches the open air through the nasal cavities. And so, quite unconsciously, you close off the passage into the



*Diagram A. The passage into the nasal cavities is closed by the soft palate (a) and the throat wall (b)*

nose and direct the air and sound through the mouth. But the closing of the passage-way is not just a matter of moving the soft palate. The back wall of the throat must come forward and the sides of the throat move in a little to help the rising soft palate to block the passage into the nose cavities. Once the closure has been made, no sound can get into the nose and all sounds must go out through the mouth.



*Diagram B. The passage into the nasal cavities (X) is open for breathing through the nose.*

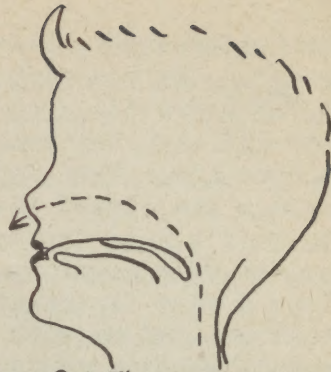
With the passage into the nasal cavities closed, you say "Hello" and you sound like the average speaker because the sounds in the word "Hello" are supposed to come through the mouth and not through the nose.

If you had been walking along the street, breathing quietly and normally through your nose before you met the person to whom you wished to



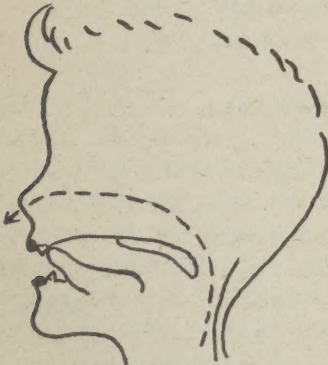
say "Hello", you would have had the passage from the nose open so that you could take breath in through the nose and have it go down the throat to the windpipe and the lungs. When you wished to speak you had to close the doorway into the nose passages, and keep it closed during the time you said the word

"Hello". The whole performance might sound quite complicated, but it would be quite easy for you if you had average mouth, nose, and throat structures.



*Diagram C(1) The sound of the letter "m". The lips are closed, the passage into the nasal cavities is open.*

Now suppose that you add a name to the greeting and say "Hello, Mary". The "Hello" is just like it was before, but you suddenly find yourself faced with the need of making the sound of the letter "m", to begin the word "Mary". The sound of the letter "m" is one of the three sounds in American speech which are



*Diagram C(2) The sound of the letter "n". The tongue touches the gum-ridge, the passage into the nasal cavities is open.*



*Diagram C(3) The sound of the letter combination "ng". The back of the tongue is raised toward the soft palate. The passage into the nasal cavities is open.*

directed through the nose passage--the others being the sounds of the letter "n" as in "now" and "man"



and the letter-combination "ng", as in "sung", "king", and "rang". If you wish to make the sound of the letter "m" correctly, you must open the passage into the nose and send the sound through the nasal passages to the open air. Then, at once, you must again close the passage and direct the rest of the sounds that make up Mary's name through the mouth. In these sudden adjustments from nasal to mouth sounds, the soft palate plays a very important part. If you could not move it, or if you had no soft palate to move, or if the soft palate were incomplete, you could not close the passage into the nose and all the sounds you used would come out through both the mouth and nose. And we have seen that only three American sounds (m, n, and ng) should come through the nose passages.

Throughout the day, whenever you speak, you make the many, many adjustments necessary to direct sounds correctly and you make them quite unconsciously. If you were to read aloud the foregoing sentence, the first one in this paragraph, you would make no less than 31 soft palate and throat-wall adjustments if you directed the various sounds properly. All these movements would be easy for you if you had a normal soft palate. The cleft-palate speaker finds such movements difficult and perhaps impossible.

We have considered the soft palate. Now let us look briefly at the role of the hard palate in speech. Many of the sounds we produce, whether they properly come through nose or mouth, must be shaped and made different from one another by the movement of the tongue against the hard palate as well as against the soft palate. In such a word as "tell", the tongue comes to the hard palate just behind the upper teeth for the sound of the letter "t", goes away to form the vowel sound, and returns to a slightly different position against the hard palate for the "l" sound. These are only two of the sounds making use of the hard palate. The hard palate plays an important part in the production of many speech sounds.

All of the things we have said thus far about



the functions of the hard and soft palates in eating and speaking have referred to the average mouth structure. With that as a background, we are now ready to answer directly some of the questions often asked about palates that are not average in structure or function.

The first of these questions usually is: What is cleft palate?

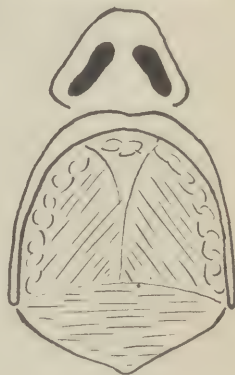
*1. Normal Palate*



Cleft palate is the result of a failure of growth before a child is born, the parts of the roof of the mouth failing to join at the midline. The opening may be complete from front to back, the gap extending from the teeth through the entire length of the palate, or it may be a partial cleft, involving only the back part of the soft palate. Occasionally an opening appears behind the gum ridge, the remainder of the palate being intact.

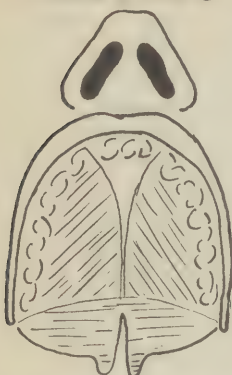
The joining of the two parts of the roof of the mouth should occur quite early in the development of the child after conception, and, when this growing together does not take place, an opening or cleft appears in the roof of the mouth. The cleft palate condition is noted by the physician when he examines the child shortly after it is born, but, unless a cleft in the lip accompanies the palate cleft, the child's appearance does not indicate to the ordinary observer the lack of growth and development of the roof of the mouth.

*2. Shortened Uvula*



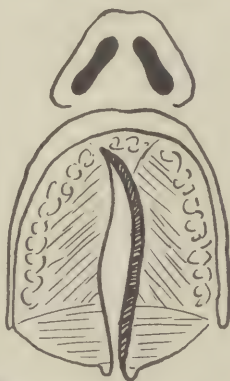
Palate clefts vary greatly in size and in their effect on the total mouth structure of the child. The normal palate is shown above. Some babies are born with a shortened uvula; some have a short and insufficient soft palate.

3. Cleft of Soft  
Palate & Uvula

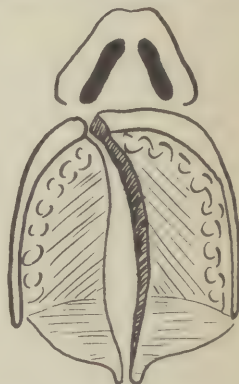


Some babies are born with a V-shaped opening which splits the soft palate, leaving a double uvula, half on each side of the cleft.

4. Cleft through Hard  
& Soft Palates



5. Cleft through Hard & Soft  
Palates & Gum Ridge

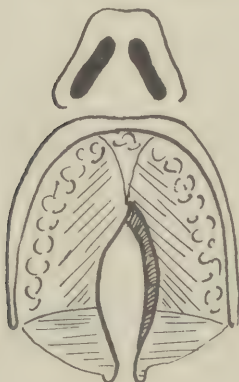


Some have a cleft that extends through both the hard and soft palates

and penetrates the gum ridge in some instances.

Most clefts are on the midline, although sometimes the split is slightly to the left or right. When the gum is divided, that division usually comes on one side at about the position of the eye tooth, or may come on both sides, particularly if the cleft in the palate is accompanied by a double cleft in the lip.

6. Midline Cleft-  
not through Gumridge



7. Double Cleft through Palate  
& Gumridge on Both Sides





Because cleft palate is sometimes accompanied by an opening in the lip, a second question often asked is: What is "harelip"?

In the first place, the term "harelip" is not quite accurate to describe the cleft lip condition. The rabbit, or hare, does have an opening or cleft in his upper lip, but that split is in the center of the lip, while in the human the cleft is almost always on one side or the other, or even on both sides, of the upper lip.



*1. Single Cleft Lip*



*2. Double Cleft Lip*

The lip cleft, which often accompanies cleft palate, but which may occur separately from it, is also the result of the failure of joining in growth during an early stage in the development of the child before he is born. The lip ordinarily grows in three sections, one directly under the nose and one on either side. There are, then, two points of juncture in the upper lip, one under each nostril. When, for some reason, the closing of those seams is not complete, the result is a cleft in the lip. Such clefts may be small or large, single or double. They frequently extend above the lip area into the nostril.



*3. Double Cleft Lip  
Extending into the  
Nostrils*

The occurrence of cleft lip is immediately observable after birth, and further investigation may reveal the presence of a palate cleft.

The diagrams on this page show some of the types of lip clefts.

Because mere description of the lip and palate openings does not help us understand the causes of these deviations from normal, a third question often posed is: What causes cleft palate?

To this question there can be no specific answer at present. Research in the cause of cleft palate and cleft lip is going on all the time, but so far no one has succeeded in finding a satisfactory explanation for this failure of growth. We have no evidence to make us believe that any stigma should be attached to the presence of cleft palate in a family. Many parents have had several children whose mouth structures are quite complete and then have a child whose palate or lip is incomplete. Some parents with clefts in palate or lip have children with average palates and lips; other mothers or fathers with cleft palates have cleft palate children.

Pre-natal care, attention to the mother's diet and her glandular adjustment, and other methods of preventing the occurrence of cleft palate are being tried now in an attempt to control the incidence of this condition, but thus far no conclusive evidence is available on the cause of cleft palate and cleft lip. That it occurs, we do know; why it occurs, we do not know.

Those who are concerned with the problem of cleft palate frequently wish to know more about the relationship between the actual cleft in lip or roof of mouth and the deviations in speaking, eating, and breathing noted in cleft palate children. They ask: What are the effects of cleft palate and cleft lip?

To answer this question, we must return to the chief uses made of the mouth and throat region, as we discussed them earlier. We breathe through nose or mouth and the air goes down the throat and wind-pipe to the lungs. We take in food or liquid and it passes through the mouth to the throat and down the esophagus to the stomach. We speak and air comes



from the lungs to the throat and voice-box and out of the mouth or nose, as air or as sound, to carry our thoughts in words to others. If there is a cleft in the palate or in the lip, all three of these fundamental uses of the mouth region may be disturbed, some more than others.

Cleft palate and cleft lip may interfere with normal breathing habits, since the usual procedure in quiet breathing is to take air in through the nose and have it, to some extent, warmed and filtered in the nasal passages before it goes to the lungs. The cleft lip child may be a mouth breather and may, as a result, miss some of the stimulation that comes from the passage of cool air through the nasal cavities. The child with cleft palate may find that the constant passage of air through both nose and mouth chambers, since they are not separated by a palate, may dry and irritate the mouth.

The lip cleft will interfere, at first, with the child's ability to nurse. Later, if the lip is still unrepaired, it will interfere with his ability to sip from a cup or to use the lips for grasping and sucking food. The gap in the palate will permit food particles to go into the nose passage, where they may be a source of irritation or infection for both nasal and ear areas. Liquids taken into the mouth may issue from the nose and not be swallowed. Chewing will be difficult or impossible because there will be no mouth roof against which the food may be moved by the tongue to get it into position to be masticated and because teeth may be out of line or fail to grow if the palate cleft has extended through the gum ridge and damaged the tooth buds.

In speech, sounds will be sent through the nasal passages as well as through the mouth. The child, as he learns to speak, will produce all sounds somewhat defectively, with the probable exception of the three which should go through the nose--the m, n, and ng--and even those may be somewhat distorted if the lip is imperfectly formed or if the gum ridge has

suffered damage because of the palate cleft. The child will try, to the best of his ability, to talk like those around him, for he learns to speak by hearing others speak. He will make any substitutions he can for speech sounds. He may form the habit of making the little explosion needed for such sounds as those of the letters "t", "k", "g", "d", and others in his throat or may fail to use the sounds indicated by those letters. He may use only the sounds he can produce with some degree of accuracy and change most of the consonant sounds to m, n, and ng. All of the vowel sounds, which are directed almost entirely through the mouth passage, will be "nasalized"—that is, sent out through the nasal passage as well as through the mouth. In addition, the child may be slow in learning to speak if speech is difficult for him and if he meets with little success in making himself understood. This is particularly true if undue attention is called to his problem either before or after repair has been made. If his hearing is somewhat defective—and that is frequently the case with cleft palate children—he will have added difficulty in learning speech, since he will have trouble hearing those around him, who are his models for speech.

Surgical repair alone is not enough to assure good speech if the child has already learned to speak before surgery is completed. Habits formed using the incomplete structure may be retained, and the child may continue to speak incorrectly even after he has a fairly normal palate.

An incomplete upper lip will affect speech, since both lips are needed for the production of certain speech sounds, such as those represented by the letters "p", "b", "m", and "w". Again, the child will do the best he can with his limited equipment and will build up habits of poor speech which will persist even after the repair is made, if that repair is delayed until after speech develops.

The above discussion has given us an answer to



the next question usually presented: Can lip and palate clefts be repaired?

It is evident that repair of cleft lips and palates is not only possible but essential to the well-being and development of the child.

Through the skill of the physician, the plastic surgeon, and the dental specialist, the child born with a cleft lip or a cleft palate has an opportunity to obtain excellent repair and to have a mouth structure which he can manage well in eating and in speaking.

Having recognized the need for repair of cleft lip and palate, we are now ready to consider the next query: How can these repairs be made?

The kind of repair needed for cleft palate and cleft lip will depend on the nature and extent of the openings present in lip and roof of mouth. The lip opening is given surgical treatment, the cleft being closed by a plastic surgeon, a specialist in his field, who tries to provide the best possible appearance and to arrange for the best use of muscles in the lip. If the lip cleft is a double one, the task of the surgeon is more difficult, but he can usually provide a movable and usable upper lip through plastic surgery. More than one operation may be necessary to complete the task, and follow-up surgery to improve appearance will often be recommended.

If the palate cleft is operable, the surgeon will use one of several accepted methods of closing it. He will use the material present in the mouth, actually moving that part of the roof of the mouth which has developed to replace that which is lacking. If the opening is too large to permit surgical repair, a special device, called an obturator, may be provided to cover the top of the mouth as does the plate which holds false teeth. The obturator gives the child an artificial palate which can be used as a division between mouth and nose passage.

In any case, the advice of the family physician will be of help to you. He may not provide the surgical repair, but he will probably refer you to a plastic surgeon who will be the judge of the need for surgery or for an artificial palate.

Your state and local child welfare agencies can be of help to you if you need advice about surgical attention for your child or if you need assistance in providing this needed palate and lip repair.

If surgery is the solution for the lip or palate cleft, it should be done at the discretion of the surgeon. However, the present trend is to provide immediate surgical repair for cleft lip, so that the child can nurse properly and not suffer needlessly from lack of nourishment. Tube feeding, which is sometimes necessary for cleft lip children, is a difficult and unsatisfactory substitute for nursing. Many surgeons now recommend lip repair as early as a few days or weeks after the child's birth. The physical condition of the child will be a determining factor in the surgeon's decision, but he will probably wish to repair the lip as soon as possible.

Repair of the palate may be delayed, although the palate opening, too, makes feeding a problem. However, because of the difficulties in the palate operation, it is frequently postponed until the child is nine months old or even older. Several palate operations may be needed to complete the repair; hence, it is well to begin them early so that as much of the work as possible can be finished before the child begins to speak. Only through early palate repair can we be sure that the child has an opportunity to develop speech that is reasonably normal, and even then we cannot be absolutely sure that the palate provided by the surgeon will function properly without some special training. Primary palate repair usually involves the closure of the soft palate area, and a cleft that extends into the hard palate region may need several operations before it can be completely closed.



In all such problems, the advice of the competent plastic surgeon will be the best, since he will know, through examination or through consultation with the physician, the physical condition of the child, the need for immediate operation, or the advisability of postponing operative repair.

Once a reasonably normal structure has been provided through surgery or by other means, further operative work may be needed to improve appearance, to make for better use of the palate for eating and speaking, to make the lip more flexible and usable, to straighten the nose, or to assure the normal growth of teeth.

The contribution of the orthodontist--the dental specialist--must not be neglected. He can serve the child by providing correction for crooked teeth, by widening the mouth arch, by adjusting the alignment of the upper teeth with the lower, and by fitting artificial teeth to replace any which may have failed to grow because of destruction of tooth buds by the cleft itself or by necessary operative procedures.

Attention should be paid to the hearing of the child with a cleft palate. If he cannot hear well, he will not develop speech that is suited to his needs. The same failure of growth that was responsible for the cleft in his palate may have been responsible for some deviation in the important connection between the nose and the ear--the Eustachian tube going from the nasal cavity to the middle ear. This tube helps to keep the ear working normally by balancing the pressure between the air on the outside and the air within the middle ear itself. However, this tube may carry infection from nose or throat to the middle ear. Frequent check on the hearing of the cleft palate child will assure prompt attention if a loss exists or develops.

No possible aid should be denied to the cleft palate or cleft lip child if that aid will help him to have a better mechanism for eating and speaking,

a better appearance, or a better adjustment to his special problem.

In our attempts to provide every possible assistance for the cleft palate child, we must not overlook his special needs beyond surgery, dental care, and attention to hearing. Our final question, then, might be: What are the additional special needs of the cleft palate child?

The child with cleft lip or cleft palate will undoubtedly have problems other than those of a physical nature. He will need to make adjustments to his problem and will need the sympathetic understanding, not the pity, of his parents, brothers and sisters, teachers, and playmates. He is not an abnormal child. He needs to be treated as if he were an average person, no different from anyone else. His frequent visits to physician or hospital may upset his ordinary household routine to some extent, but he should not be considered "different" or "unusual" or "handicapped" just because he needs special help in some ways to assure the development of good speech and the maintenance of good health.

With a few exceptions, children born with cleft lips and cleft palates will develop physically just as they would have developed if they had not had the lip and palate openings. It is true that early feeding problems, the possibility of bad breathing habits and of nasal infections, frequent hospitalization and operations, and difficulties in personality adjustment may make the cleft palate child slow in growth, a little thinner, a little smaller, a little paler than his brothers and sisters or friends, but he will not necessarily continue to be small and to seem undernourished. He may be subject to colds, earaches, infections of the nose and throat; he may be small for his age; he may need special physical care and supervision. These needs are probably the indirect result of the cleft palate.

Neither is there any reason for the child with



a cleft palate to be mentally retarded by the palate opening. If he is slow to learn and if he does not lead his class in school, this slowness may be due to many factors but not necessarily to the palate cleft. It is true that his difficulty in making himself understood may make some people, who cannot understand him, consider him a "dull" child. It is also true that he may be late in starting school or may have to miss some schooling if he is sent to the hospital for operations, but most of the operative repair for children of school age is done during the summer months and most children's hospitals provide "bedside schools" for their patients during the winter. We should expect average school work and at least average mental development from the average cleft palate child. We must realize his needs for attention, affection, responsibility, and understanding and meet those needs to the best of our ability.

## PART II

### HOW PARENTS AND TEACHERS CAN HELP THE CLEFT PALATE CHILD

Parents of children born with cleft palates or cleft lips, wishing to do all they can to be of service to those children, must continue to provide care and attention after surgical repair of the conditions has been secured. In the case of the lip cleft, surgery done early by a competent plastic surgeon will generally be sufficient, since the repaired lip usually assumes its functions quite well. Exercise of the lip in indirect ways, such as the playing of a musical wind instrument that requires lip pressure will be helpful. Drill for lip agility will help to insure better articulation in speech and better facial expression.

Following even the earliest repair of the palate, parents can begin to encourage the child to use speech sounds carefully, can provide good examples of speech for him to observe, and can procure for him the assistance of a specialist in speech through the city school system or upon recommendation of the physician. They can supervise home drill on materials presented by the speech therapist and can give, at all times, understanding attention to the child and his problems of adjustment to a world in which he may, unfortunately, sometimes be made to feel out of place.

The first consideration in the speech training of children with cleft palates is to attempt to secure operative repair of the cleft palate condition before the child has had an opportunity to learn speech, or, if this is not possible, before the child has had too long a time to practice speech habits with an incomplete or partially-repaired structure. Early surgery performed by a specialist, followed by speech training, if it is needed, will make for better speech for cleft palate children.



Speech needs more training than do chewing and swallowing, since the speech habits are learned later and at a much slower rate than are the eating habits. Hence, speech training may be essential to a child who, as soon as the repaired tissue has healed, is able to chew or swallow with relative ease.

There are a few basic speech habits and skills, which parents can help their children to develop, that will enable the child to learn improved speech more quickly and easily. First, the child with a repaired palate must learn to use that palate for speech and must be able to move and control it as he speaks. Blowing drills of any kind are excellent to help him establish movement of the soft palate after the surgeon is satisfied that exercise of the palate will not be injurious. These blowing drills serve to provide a natural impulse for the movement of the soft palate up and back to meet the wall of the throat as it closes in to shut the passage into the nasal cavities.

Second, after some control of the palate has been learned, the child can begin to use the closure of the port into the nasal cavities in speech, learning to direct vowel sounds and all consonant sounds other than m, n, and ng through the mouth instead of through the nasal passage.

Third, the child can be taught, directly as well as by example, how to form the various sounds of speech correctly and how to use them in words, phrases, and sentences. The parents must provide good example in the production and use of sounds and can frequently show the child how a certain sound is formed so that he can imitate not only the sound itself but also the movements or position for its production.

It will be necessary to wipe out old, bad habits as well as to build new, correct ones. Parents can encourage the child to use the sounds he is now able to produce and can remind him, under certain conditions to be discussed later, of his mistakes.

The same drill materials that are suggested for teachers should be used by parents at home, although the most valuable contributions to the child's speech training that parents can make are to give him good example in speech and to supervise practice material assigned to him.

No one in the family should be permitted to anticipate the child's requests, but all should insist that he use speech to the best of his ability for the expression of his needs and wants. He must realize the value of speech if he is to use it well. If he is excused from using speech to make known his needs and wants, he will fail to recognize the importance of clear self-expression at home, at school, and in other social situations.

Parents should not consider that the operative correction of cleft palate, or of cleft lip, is the final step to be taken. We have mentioned before that further operative procedures may improve appearance, make for better mouth and tooth structures, and provide an improved mechanism for use in speaking and eating. Attention to dental problems, consideration of the advisability of orthodontia, care of hearing difficulties, and opportunity for the best possible physical condition will prove worthwhile in terms of better social, school, and home adjustment for the child.

And when the best possible repairs of palate and lip have been followed by attention to appearance, hearing, tooth alignment, and physical condition, the parent will find that he has given the child a basis for good personality development. Understanding and a fair share of attention, opportunity for self-expression and a normal part in the family conversation, playmates who accept him and brothers and sisters who consider him a perfectly normal individual--all these factors will help the child with a cleft palate to make the most of his home and school opportunities.

All of these desirable situations have their



foundation in the necessity for acceptable speech, which can be assured only if early operative repair is followed by speech training, if such training is deemed necessary.

In any program designed to aid the child, co-operation between home and school is essential. Parents and teachers, working together, can provide for the child endless opportunities for growth and development in speech as well as in education, health, personality, and social adjustment.

The child enters kindergarten or first grade with a whole new world of opportunity before him. To take advantage of this new world, he needs certain qualities, chief among which is the ability to express his ideas, his needs, his wants, his opinions, and his enthusiasms by means of speech suited to his age and his grade level. The school system will undoubtedly wish to give the child special assistance if his speech is unsuited to his age, his mental abilities, and his grade in school.

Many school systems have set up methods of definite training in speech for all children whose speech is not within normal limits for age and grade, and include the cleft palate child in their speech programs. The speech correctionist, working with the child alone or in a group, tries to build up those desirable habits of palate movement and control, production and use of correct sounds, and elimination of faulty sounds which we cited previously. However, some school systems have not as yet established a program of special speech training for children in the grades or high school. If such training is not available through a regular school program, it must be provided by the classroom teacher and the parents.

Teachers and classmates must be willing to accept the cleft palate child as a normal individual, and should not consider him "defective" or "abnormal", or "underprivileged" in any way. In spite of any handi-

cap in his speech, he may be a leader in his class and a popular member of his social group. All he needs is an opportunity to do his work and have his fun with the others, since he can be, and frequently is, a normal, healthy, well-adjusted individual.

The classroom teacher should insist upon slow, clear speech at all times. Every opportunity for speaking should be used by the child as a practice



Provide for the cleft palate child every opportunity to observe his own speech. Encourage him to exercise the palate muscles by blowing.



period for good speech. The cleft palate child should not be excused from participation in oral discussion simply because his speech is not up to the standard of the other members of his class. Instead, he should be given full opportunity to do his share of the speaking under conditions which are favorable for his growth in speech, in poise, and in social adjustment.

At all times and in all places, an understanding evaluation of the child's speech must be made. Other children must not be allowed to mock or criticize his speech, nor to tease him about it. They should be given an explanation of his problem and should be encouraged to help him by attentive listening, sympathetic understanding, and kindly reminders to express himself to the best of his ability. Examples of good speech should be provided constantly by the teacher and the other members of the class. If it is at all possible, the teacher should devote a few minutes each day to individual work with the cleft palate child, after surgery is completed. Such a period could be used for drill in the correct production of sounds, words, and sentences and in establishing good habits in the direction of sounds through the mouth passage.

If it is not possible to give the child individual attention, the teacher may be able to incorporate in her language, reading, or spelling class some drill material and exercises that would be beneficial to all the class and particularly helpful to the cleft palate child. Such group training may help to prevent the child's feeling self-conscious about his special work, and may give the other children a better understanding of how to assist him.

In any event, the teacher, as well as the parents, must have an understanding of the child's problem, a concept of her role in his improvement, and the desire to assist him in making any adjustments necessary to assure for him the best possible school and social life.

### PART III

#### SUGGESTIONS FOR SPEECH TRAINING FOR THE CLEFT PALATE CHILD

We have been speaking, in a general way, of speech training for the cleft palate child. We have considered the basic problem brought about by the lip and palate clefts and the general contributions that can be made by the parents and teacher to the personality development and speech improvement of the child. We are ready now to look at specific drills and methods that can be used in providing the speech training so often needed after surgery has been completed.

Our basic premise in all speech training--for the cleft palate child or for any other--is that drill, explanation, and practice must fit the individual child and his individual needs. Our suggestions must therefore be quite general, but they can be "tailored" to each situation. Parents and teachers can learn to know the child's particular problems so well that they will be in a position to understand his needs and to help him in overcoming many of his deviations in speech.

Having recognized the essential need for consideration of each child as an individual, we may turn to a general plan of speech training procedure designed to fit the majority of cases. Such a plan involves the recognition of the child's problems and provision for special drill, ear-training, and daily practice of newly-acquired speech skills.

If we are to help any speech-handicapped child, we must first determine his speech deviations. This involves, of course, a consideration of so-called "normal" speech.



Speech within the normal range may be described as being speech that is easy to hear, easy to understand, suitable to the age and grade level of the child, reasonably pleasant to watch and to listen to, and sufficient for the expression of the child's needs, wants, ideas, and opinions. "Normal" speech is speech that is usable and serviceable, that is an adequate means of self-expression for the speaker. It is speech that enables him to keep in touch with those around him and to make a reasonably favorable impression upon those with whom he talks.

If we are trying to evaluate the speech of a child whose cleft palate has been surgically repaired, we may have, as a basis for comparison, only our own speech, the speech of other adults, and that of children of the same age and grade as the one we are hoping to help. We must, then, sharpen our own sense of discrimination by listening attentively to the speech of children of a certain age and grade level, to the speech of adults with whom we talk, and, insofar as possible, to our own speech.

We should pay attention to the voice used. Is it "nasal"? Would we say of the individual, "He talks through his nose"? Is it too high in pitch to be pleasant? Is it "squeaky" or "breathy" or "thin"? Does it seem to be a voice unsuited to the individual using it?

We should pay attention to the pronunciation of the sounds used. Does the child say " 'um" instead of "come"? Does he say "moy" instead of "boy"? Does he say "nall" instead of "tall"? Does he say "ngat" instead of "cat"? Does he omit or distort sounds in the words he uses?

We need to consider, also, the use of sounds in words, phrases, and sentences. Does the child use the sound of the letter "b" in the single word "Bob", but fail to put it into the phrase, "Let's bob for apples"? Does he say the word "Dad" clearly, but fail to use that word well in a sentence such as,

"My Dad is in town today"?

There are three things to keep in mind as we try to evaluate the child's speech in terms of the speech sounds he uses or fails to use. They are: the use of sounds in relation to the child's age, the use of sounds in various positions within a word, and the differentiation between the letters of the alphabet and the sounds of the American language.

By the time a child is five years old, or by the time he enters school, he should be able to produce, and use in words and sentences, certain of the speech sounds used by all American speakers. These are the vowel sounds and the consonant sounds p, b, m, t, d, n, k, g, ng, (as in "ring") h, y (as in "yes"). (These sounds are not the names of the letters used most frequently to spell them, but are the sounds themselves. They are not pee, bee, em, tee, dee, en, kay, jee, en-jee, aitch, and wy; they are the simple sounds indicated by those letters--the sound of the letter "p" in the word "pipe", the sound of the letter "b" in the word "book", the sound of the letter "m" in the word "home", and so on.)

During his first year in school, or by the time he is six, the child will add to his list of usable sounds that of the letter "f" as in "fish" and "waffle" and "half". He may, of course, use all of the speech sounds before he enters school, but he does not have to do so to be within normal limits in speech development.

The sounds of "v", as in "very", "waving", and "have", of the voiced "th", as in "this", and "mother", of "zh", as in "measure" and "pleasure", of "sh", as in "show", "bashful", and "wish", and of "l", as in "look", "little", and "call" should be added to the foregoing sounds by the time the child is seven years of age.

The use of the remaining American speech sounds should be established by the time the child is eight.



These sounds are: "z", as in "zebra", "hazard" and "was" (the final sound in the word being pronounced as z even though the letter "s" is used in spelling), "s", as in "sing", "listen", and "miss", "r", as in "run", "borrow", and "father", the voiceless "th", as in "think", "birthday", and "both", and "wh", as "when" and "somewhere".

For your convenience in checking the sounds the child can produce correctly, a list of sentences is given on the following page. In these sentences, most of the sounds are used at the beginning, in the middle, and at the end of words. The vowel as well as the consonant sounds are given in this list of sentences.

When we know the errors a child is making in speech, we are better able to determine the best way in which to help him. If he misuses or omits the "t", "sh", and "s" sounds and is only six years of age, we should teach him the "t" sound and, giving him good example in speech always, wait until he is seven before we teach him the "sh" sound. By that time, he may have learned it by himself. If he has not, then it may be taught to him. If "s" is still poorly produced when the child is eight, and if he has a tooth and mouth structure that will permit him to learn the sound under direction and supervision, then we should show him how to produce the sound usually indicated by the letter "s" and give him an opportunity to practice, with our ear and his as his guide, the use of that sound in words and everyday speech. In presenting to the child a sound he has never used or a sound he uses incorrectly, do not say simply, "Johnny, don't say 'ing', say 'king'." Such a procedure will not help the child a great deal, since "ing" is "king" to him. Instead, show him first how the k (the sound of the letter "k") is produced. Have him imitate the tongue position you use. Demonstrate the way in which the back of the tongue goes up to the soft palate in k and how it snaps away again as a puff of air comes out through the mouth.

Test sentences may be read by the child or repeated after the parent or teacher.

1. e Each of the people saw me.
2. i In summer my work is easy.
3. e End with the letter that you think best.
4. a Am I the man who ran back of him?
5. a Are your hands as large as your father's?
6. o Always call for the man you saw.
7. oo Would you read as many books as you could?
8. oo Who will do our work when we are through?
9. u Up and away; the best is above us.
10. a About half of the boys saw another girl with Anna.
11. a Play hard and stay all day.
12. o Oh! How I hope to go!
13. i I always like to know why.
14. ou Our house is very old now.
15. oi The point is that he is only a boy.
16. b Be above such things, Bob.
17. p Please open the book and stand up.
18. m May I remain if they go home?
19. w We will go that way if you wish.
20. h He had hoped to be here.
21. d Do you see him standing there in the cold?
22. t Tell the little girl what you want.
23. n Not once did he run.
24. g Give him the book again when he gets big.
25. k Keep working on the book.
26. ng Think of things to bring.
27. y Years went by with nothing new to try.
28. f For a long time after that, he had a happy life.
29. v Very often he thought over the things he wanted to have.
30. th That boy's father and mother are the ones he is with.
31. zh He finds pleasure in his work.
32. sh Show them the dishes if you wish.
33. l Little did they think that help would come later.
34. ch Change the word "speeches" to "speech".
35. j Just tell him that the soldier is too large.
36. z It is easy to hear what he says.
37. s See them soon if you want the best house.
38. r Run from here to there.
39. th Think of nothing but what pleases you both.
40. hw Where were you when we saw you?





The use of a mirror for both  
child and teacher is recommended.

Present the sound to the child through many of his senses. Be sure that he hears it, that he sees how it is produced, and that he notices in a mirror the movements of tongue, lips, jaw, and soft palate as he says the sound correctly. Have him use k with

other sounds, not in words he already knows, but in sound-combinations such as kee, kay, kie, koh, koo, eek, ayk, okay, ookee, and so on. This procedure will help the child learn the many muscle adjustments necessary in the production of k and will avoid his old word-habit of using t for k or of leaving out the "k" sound altogether.

Even if we provide the most careful and persistent help for the child who is learning speech sounds, we cannot be sure that he will retain the newly-acquired sound skills unless he can listen to his own speech critically. Hence, it is important for us to know, first, that the child's hearing is within normal limits and, second, that the child is listening carefully to his own speech and to that of others. We must make him conscious of speech sounds through ear-training. Have the child listen to you as you pronounce a certain word—"fan", for example, for the "f" sound. Pronounce the word correctly and incorrectly ("fan", "pan", "than", "fan", "man", and so on) and ask the child to tell you each time you say correctly the name of the object we wave back and forth in summer to keep us cool. Have him tell you other words in which he hears the "f" sound, such as "fish", "face", "left", "if", "after", and "knife". Give his ears the opportunity to help his speech by becoming "good listeners".

Correction of the child's errors in the production of speech sounds will not guarantee good speech for him. He may be able to form the sounds clearly, but he may still direct them through the nasal passage instead of through the mouth. In the case of m, n, and ng, this direction of sound through the nasal chambers will be correct, but if other sounds are sent out through the nasal cavities they will seem "nasalized" and will not be accurately produced. For example, the child with a repaired cleft palate may know that the sound of the letter "p" in the word "pay" is one for which the two lips come together, then open to emit the puff of air we have come to recognize as the p sound. He may put his lips



together in the proper manner, then open them, but send the puff of air out through the nasal passages because he has failed to close the "gate", the portal at the back of the mouth described and illustrated on pages 3 and 4. In such an instance, the nasally directed p may be similar in appearance to the p used by most people, but it will not sound like the normal p sound.

In the case of a voiced sound--b, for example,--the distortion will be even greater if the sound is directed through the nasal passages instead of through the mouth. The vocal tone, which is part of the "voiced" sounds such as b, d, g, z, v, and so on, is greatly changed in quality if it goes through the nasal cavities. It is important to the child's speech for him to direct the tone through its proper channel; hence, control of the soft palate and back wall of the throat is essential.

This control of what we have termed the "gate", for ease in discussion, may be acquired by the child if he understands what is wanted of him and if he has many opportunities for practicing this skill. Blowing exercises of any kind will be of value to the child who needs to learn "gate" closure, since the palate and throat-wall make an almost involuntary adjustment in blowing. The child should blow soap bubbles, should blow any simple musical wind instrument, should direct little puffs of air between rounded lips onto his finger tips or against the palm of his hand, or should do any one of a number of other blowing drills suggested in more detail in the following pages.

In addition to the skills described, which are important parts of the speech training of the cleft palate child, certain basic speech skills will be of value to him. He should have an agile tongue, flexible lips, and a relaxed jaw. He will find that control of all of the parts of the body used in speech will aid him in overcoming the particular speech deviations which result from lip and palate clefts. Because these general drills seem to be essential



Blowing soap bubbles.

parts of the entire speech program, they are given first in the following sequence.



The following suggested exercises provide a guide to speech training for the cleft palate child. These drills, done with care and with regularity, should make it possible for the cleft palate child to improve his speech, provided he understands his problem, works under supervision, and moves forward as he masters each defective sound and each bad speech habit.

Each practice period might well begin with some of the following general exercises, designed to provide mobility and control of the jaw, the lips, the tongue, and the soft palate (the "gate"):

#### Jaw exercises

1. Chewing in rhythm (beginning slowly and increasing the speed).
2. Chewing like a camel (moving the jaw from side to side).
3. Stretching the mouth as wide open as possible.
4. Clicking the teeth lightly together (building up speed to as rapid a rate as possible).

#### Lip exercises

1. "Beaming"—stretching the lips in a broad grin.
2. Tucking the lips in (until none of the red border can be seen).
3. Moving the lips from side to side as far as they will go.
4. Pushing lips forward as far as possible and then pulling them back into a smile as the child thinks "oo-ee, oo-ee....."
5. Puckering and opening the lips several times in succession in the production of "wah... wah...wah..."
6. Compressing and releasing the lips rapidly, with the sounds "mee...mee...mee...mee..."
7. Adjusting the lips for the prolonged vowel sounds "ah...", "oh...", "oo...", "ee....."
8. Massaging the lip by placing the tongue between the upper lip and the teeth and moving it from side to side, stretching the upper lip (This exercise is especially beneficial for the child who has a short or taut upper lip).

10. Massaging the lips by placing the finger tips on the upper lip and moving the lip against the finger pressure.

#### Tongue exercises

1. Touching the nose with the tongue tip.
2. Touching the chin with the tongue tip.
3. Extending the tongue as far as possible and pulling it quickly back into the mouth.
4. Touching the corners of the mouth with the tongue, moving from the right side to the left and back again in quick succession.
5. Licking "honey" from the lips, the tongue circling the upper and lower lip edges.
6. Moving the tongue in a circle between the teeth and the closed lips.
7. "Cleaning house"
  - a. Sweeping the tongue along the roof of the mouth from back to front--"Cleaning the attic".
  - b. Sweeping the tongue upward from behind the lower teeth--"Cleaning the basement".
  - c. Pushing the tongue against the right cheek wall--"Tapping in a loose brick".
  - d. Pushing the tongue against the left cheek wall--"Tacking on a loose shingle".
  - e. Running the tongue along the outside of the upper teeth behind the lips--"Cleaning the upper porch railing".
  - f. Running the tongue along the outside of the lower teeth behind the lips--"Cleaning the lower porch railing".
  - g. Flapping the tongue rapidly--"Shaking out the rug".

When the child has done some preliminary "limbering up" drills, he should go on to the particular consideration of the day--the proper position and direction of air for the sound of the letter t, the proper position and direction of sound for b, the incorporation of k and g into words in phrases and short sentences, or any other



individual and special problem with which he needs to be concerned at the time.

Since each speech problem will need to be approached in terms of the individual need and the individual situation, let us consider how to teach the sounds of American speech to the child, and how to help him overcome nasality. After that, we may look at specific examples in teaching procedure.

One of the chief points to keep in mind as you begin to help the cleft palate child to overcome his specific speech deviations is the distinction between "nasal" and "non-nasal" sounds. If we consider the sounds in American speech, we will recall that only three of them--the m, n, and ng as in man, now and sing--are directed through the nasal passages. All of the other sounds are sent through the mouth. Although this hard-and-fast division between m, n, ng and the other sounds is not maintained by all American speakers, it is a very important distinction for the cleft palate child to learn.

The cleft palate child has not used his soft palate to close off the passage into the nasal cavities in speech. First, he has not used it before surgical repair because it has not been complete and could not work in conjunction with the walls of the throat to make a "gate" closure. Secondly, he has not used the repaired soft palate because, particularly if he has learned speech before surgery is completed, he does not know how to use the new, complete palate that he has and he continues to speak as he did before surgery.

If we help the child to control this soft palate-throat wall "gate"--we are helping him in two ways: First, in learning muscle adjustments which will enable him to produce consonant sounds correctly and, second, in using this closure in the formation of vowel sounds. Both of these skills are needed if he is to overcome nasality.

It may help the child to understand the importance

of palate movement to speak of the palate as a "gate" and of the adjustments of the palate and throat wall as "opening the gate" and "closing the gate". A reference to the diagrams on page 3 will provide graphic illustration of the process of closure. We can tell the child that he closes the gate when he says "ah". We can have him look into his mouth with a mirror and say the sound "ah" and let him observe for himself the action of the soft palate and of the back wall of the throat as they come together to close off the passage into the nasal cavities. He can then say "ng - ah", still watching his palate in the mirror, and can see how the changes in palate position change the direction of the sound. If he places his fingers lightly on the bridge of his nose, looks into the mirror, opens his mouth wide, and says "ng" and "ah", he will feel the "ng" sound come through the nasal passage as he watches the soft palate move down and will feel that "ah" may cause less vibration in the nasal cavity as the soft palate moves back and the wall of the throat moves forward to "close the gate".

The following drills will help the child learn control of the soft palate and will aid him in opening and closing the "gate".

1. Saying "ah...", holding the mouth well open.
2. Thinking "ah...", without making a sound.
3. Opening the mouth wide, then breathing in through the mouth.
4. Yawning.
5. Breathing in through the nose and out through the mouth with the mouth held open.
6. Breathing in through the mouth and out through the nose with the mouth held open.
7. Repeating syllables—ung-ah, ung-ah, ung-ah--with the mouth open and no movement of the jaws.
8. Repeating syllables—ing-ick, ing-ick, ing-ick --with the mouth open and no movement of the jaws.
9. Panting like a dog with the mouth open and the tongue in a relaxed position.
10. Breathing in through the mouth and expelling



- air between puckered lips.
11. Breathing in through the nose and whistling, being sure that the breath goes out during the whistle.
  12. Massaging the soft palate by puffing out the cheeks and pressing the fingers repeatedly against one cheek without allowing the air to escape through mouth or nose.
  13. Blowing (See page 31)
    - a. through straws
    - b. soap bubbles
    - c. pin-wheels
    - d. balloons
    - e. wind instruments
  14. Whistling tunes (blowing the air out, not drawing it in).
  15. Saying the word "papa" or the word "so" with the fingers held lightly on the bridge of the nose. (Notice that no vibrations are felt in the nasal passages. Instead, the sounds are directed through the mouth.)
  16. Letting the child feel the difference between nasal and mouth sounds by placing his fingers on the bridge of your nose. (Be sure that you have experimented for yourself before you demonstrate for the child, and that you are producing these sounds correctly and directing them through the proper passages.)

As you work with the child, at home or at school, do the following things:

1. Have brief periods of general drill (See pages 32 and 33) and drill for "gate" movement and control (See page 35).
2. Show the child how a defective sound should be pronounced.
3. Make the sound yourself, having the child watch you carefully.
4. Have him imitate you, watching himself in a mirror.
5. Insist that he say the sound correctly by itself before he tries to use it in words and sentences.
6. If he cannot make a certain sound correctly,

show him again exactly where your tongue goes, how your lips move, what occurs at the soft palate "gate", and whether the throat "buzzes" or is silent.

7. If the child still makes a mistake in the production of a sound, you may need to review some of the palate exercises to help him use the palate closure in making the sound. Usually the "ah" sound, prolonged, with the mouth wide open, will get the "gate" closed. So, such drill as: ah-d-ah, ah-d-ay, ah-d-ee, ah-d-oo, may enable the child to make a better d sound than just dah, day, dee, doo.
8. At all times, use your own ear as a guide, remind the child to listen carefully, and use a mirror to help both yourself and him. The illustration on page 28 shows a teacher and pupil, sharing a mirror, working on the sound p. The child is watching both the teacher and herself as she tries to get the position for the sound.
9. Follow the sequence of sounds given earlier in this discussion (page 26), teaching b before f, and k before s, for example, if the child makes errors on those sounds.
10. Keep in mind the fact that the child need not be able to produce and use all the speech sounds until he is eight years old.
11. Be sure that he is using all of the sounds that are expected of him at his age, but do not insist that he use sounds beyond his age level. (See pages 25 and 26 for this "developmental" list.)
12. In some instances, sounds will be formed correctly--that is, the position or movement for the sounds will be correct--but the child will continue to direct the sounds through the nasal passages instead of through the mouth. Constant drill on "gate" movement and control will help overcome these faults. If b is still like m, have the child go from one sound to another, using a drill such as m-b-m-b-m-b, reminding him to "close the gate" for b each time he says it. Having him touch his nose as he says m and hold his

hand in front of his lips to feel the b sound come out will help him in directing these sounds properly.

13. One of the greatest helps in learning to send sounds through the mouth is blowing. Let the child blow against your hand and on his own. Have him hold the first finger of one hand in front of his lips and place the first finger of his other hand under his nostrils. As he blows between pursed lips, he should feel breath only on the finger in front of his mouth. If air escapes from his nostrils, he does not have the "gate" closed. Blowing a whistle, or musical instrument, blowing through a straw, puffing on a piece of paper, or whistling (as long as he does not whistle on an indrawn breath) will provide excellent exercise for the palate.
14. Teach the child to think of all speech sounds--except m, n, and ng--as coming through the mouth. Have him make a "basket" of his hands and pretend that he puts words into it. This helps him to concentrate on directing the sounds through the mouth. Have him "push" the words out from his mouth toward a real or imaginary target. Suggest that he try to blow a small piece of paper across a desk or table with the p, b, t, d, or wh sound.
15. Begin at once to encourage the child to use, in his everyday speech, the sounds he is learning in drill periods. Set aside one week, or several if more time is needed, as d week or k and g week or s week and hold the child to accurate use of the particular sound or sounds during that time. At the supper table at home, during reading and spelling and language lessons at school, insist that he use correctly the one or two sounds he is trying to master. Do not hurry him. Do not have him work on more than two sounds at a time. When one problem seems to have been solved, go on to the next.
16. Once you start to help the cleft palate child with his speech, make the lessons a regular part of his daily routine. Work with the child each



- day at a specified time. Make it his responsibility to maintain the schedule that he, the parent, and the teacher, agree on.
17. Provide frequent short periods of drill rather than few long ones. The child gains far more from three ten-minute speech lessons during the day than from one lesson lasting thirty minutes.
  18. Parents and teachers must cooperate in presenting a "united front" in this speech work. It will not do for the teacher to insist on attention to a specific problem and for the parents to ignore that problem. If both parent and teacher attempt to assist the child, the sequence of work should be decided in conference and followed carefully.
  19. Encourage the child by pointing out his successes. End each lesson with some drill that the child can do well. Try to make him feel the importance of good speech so that he will try hard to improve.
  20. Check your own speech. Be sure that it serves as a good example for the child. Learn to listen to yourself and to others as you wish the child to listen.
  21. Make the speech lessons pleasant periods for the child. Help him to have fun as he works. Hold him to good standards of attention and response, but do not make this work "just another lesson".
  22. Help the child to learn first the words and phrases he needs to use every day—"Hello", "How are you?", "I am fine", "May I have...", "Please give me...", "How do you do?", his name and address, and his age. If his speech is serviceable and if he obtains a favorable response from his better speech, he will try all the harder to improve.
  23. Do not be concerned because you are not an "expert" in speech. You cannot expect to do as much in training the speech of your child or your pupil as the trained speech correctionist might do, but you have the advantage of being with the child daily and of being able to work with him regularly over a long period of time.

You can do him no harm by giving him these speech drills. You can, in all probability, do him some good. However, a good rule to observe is this: If you are not sure of your procedures do nothing until you ask the advice of a specialist in the field. If possible, check with the plastic surgeon to be sure that the child is ready for speech training. If possible, check with a speech correctionist to be sure you are using the most helpful procedure. Do not hesitate to ask advice. Ask it, then determine your course of speech training and follow it to the best of your ability.

Consideration of a typical situation may be of value. Do not think of the following procedures as the only approach to speech help for the cleft palate child. Indeed, there is no "only approach". This is simply an example which may help you to see more clearly some of the things you might do to help your child or your pupil. It is present in "diary" form so that the time element may be included. It is written from the point of view of the teacher, but the parents' contribution is considered, also.

September 5. Today Mary Jane Doe entered my first grade class. She is 6 years old, a seemingly bright youngster, but her speech is very poor. The children who know her understand her fairly well. I must admit, I don't. I'll see her family at once.

September 8. Mrs. Doe and I discussed Mary Jane's speech problem today. Mrs. Doe tells me that Mary Jane was born with a severe lip and palate cleft, that the lip was repaired when she was only two weeks old, and that surgery on the palate was completed two years ago when Mary Jane was four. She learned to speak at an average age (about 16 months) but couldn't be understood, except by the family, even after the palate was completely repaired. I do hope I can help the child. At least I can keep the other children in the room from teasing or mocking her.



September 15. The Bureau for Handicapped Children in Madison has a bulletin for Mrs. Doe and me to use in helping Mary Jane. It is called "A Teacher-Parent Guide to Speech Training for Cleft Palate Children". We'll read it carefully. Both Mrs. Doe and I have sent for copies.

September 20. This afternoon Mrs. Doe, Mary Jane, and I met to begin work on Mary Jane's speech. We won't have to have many of these three-way meetings after we get started, because Mrs. Doe and I will make our plan and each will do her share--she at home, I during phonic drill and at any other time I can find at school. Well, we listened to Mary Jane and, although we're not speech experts, we found, as she repeated sentences from that bulletin (they're on page 27) that she made the following noticeable mistakes: She said m for b; she said n for d and t; she said th for s and z; she left out k and g; she "nasalized" the vowel sounds. Really, the child spoke far better when she was being careful than I've ever heard her speak before, and she seemed to enjoy the "game" of repeating things for us. We probably missed a lot of little mistakes--and maybe some big ones--but if she learns those sounds I've listed, her speech will be much clearer. We decided to start with just two things--teaching her to blow, which she does poorly, and teaching her to say b. Mrs. Doe will help her every day as soon as she gets home from school and I'll work with her during phonics class. (Lucky I have only three first graders in this rural school.)

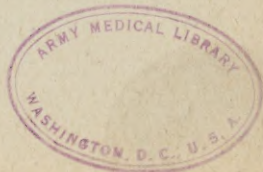
September 30. Mary Jane can say b. And it makes me feel good to hear her say it! Now if I can get her to use that sound in words-- Guess I'll have her cut out some pictures of things with the b sound in them--a baby, a book, a ball, a basket, a ribbon, a rabbit, and a crib--and paste them on a sheet of paper. (Note to myself: remember to take that old reader and last year's mail-order catalogue for her to cut up.) She can take the pictures home, too, and "show off" to her family!



October 5. Today Mary Jane showed me how well she could blow a crumpled piece of paper across her desk. She's beginning to get the idea of blowing through her mouth. And I noticed that she said "boys" and not "moys". She still makes some mistakes on b, but it's coming. David and Ellen, the other first graders, know all about b, too.

October 10. Mrs. Doe and I decided it's time to try another sound for Mary Jane. Better not tackle s and z yet--the bulletin said they weren't absolutely essential until a child was eight. (Note to myself: Ernest, who is ten, says th for s. Better check up on him.) Perhaps t and d might be the next sounds. Since they're formed the same except that t is whispered and d has voice with it, we can probably do them together. Mary Jane's blowing does seem to be making her voice less nasal. It's hard to tell, of course, since I'm getting so used to her speech. Maybe I'd better listen a little harder. Mary Jane reminded Ellen today to make b clearer. Quite the little teacher!

October 31. Maybe we're not experts, but Mrs. Doe and I have decided we can do a great deal to help Mary Jane. Her speech is really much better and she seems to be more sure of herself on the playground and in conversation at school. Mrs. Doe says she talks more at home and that Mr. Doe, who was sometimes cross with Mary Jane when he couldn't understand her, is very pleased. I'm glad we've been able to help her. We needed the suggestions about exercises and procedure, of course, but our attitude toward Mary Jane and her speech has been a great factor in her improvement. She's a bright child. She loves attention and affection. She wants to be just like the other children. And her speech is better. There's still a long way to go, with orthodontia and probably more surgery to improve appearance, but it's worth every minute and every dollar spent on her if we can help her to become a better speaker, a more effective person, and a better member of society now and in the future.



These few excerpts from the imaginary diary of an entirely imaginary teacher may serve to illustrate one approach to the speech problems of one cleft palate child. The teacher and the parents are working together. That's fine. They are working for the child. That's even better. They are planning and then following their plan. That way lies success, and that success means better speech, better adjustment, better living for the cleft palate child.

